

Policy & Procedure (P&P)

Policy Title :

Testing Refrigerator Alarm

Department	Index No.	Scope
Laboratory & Blood Bank	LAB-101	Blood Bank Staff
Issue Date	Revision NO	Effective Date
27/10/1432	2	23/07/1440
Review Due Date	Related Standard NO.	Page Number#
23/07/1442	CBAHI (LB . 58.3)	2

01. Policy :

- 01.1. Blood storage refrigerators and freezers are equipped with a system for continuous temperature monitoring and an audible alarm. In the event that a storage unit goes into alarm, it is essential that personnel know the appropriate actions to take.

02. Definition:

N/A

03. Purpose :

- 03.1. The maintenance of temperature is very vital in Blood Bank for all the equipment used for storage of blood /blood components as stability & safety of blood products is temperature dependent.

04. Procedure :

- 04.1. Refrigerator temperatures may increase beyond acceptable limits for several reasons, including:.
- 04.1.1. Improperly closed door.
 - 04.1.2. Insufficient refrigerant.
 - 04.1.3. Compressor failure.
 - 04.1.4. Dirty or blocked heat exchanger.
 - 04.1.5. Loss of electrical power.
- 04.2. Material:

- 04.2.1. Calibrated thermometer.
- 04.2.2. Pan large enough to hold the thermocouple container.
- 04.2.3. Water.
- 04.2.4. Crushed ice.
- 04.2.5. Table salt.
- 04.2.6. Worksheet for recording results.

04.3. Method:

- 04.3.1. Verify that the alarm circuits are operating, the alarm is switched on, and the starting temperature is 1 to 6°C. Immerse an easy-to-read calibrated thermometer in the container with the alarm thermocouple.
- 04.3.2. For low activation: Place the container with the thermocouple and thermometer in a pan containing an ice and water slush at a temperature of -4°C or colder. To achieve this temperature, add several spoonful of table salts to the ice.
- 04.3.3. Close the refrigerator door to avoid changing the temperature of the storage compartment.
- 04.3.4. Keep the container in the pan of cold slush, and gently agitate it periodically until the alarm sounds. Record this temperature as the low activation temperature.
- 04.3.5. Remove the container from the slush bath. Allow the fluid to return to normal temperature, and record the temperature at which the audible or visible alarm signal stops.
- 04.3.6. For high activation: Place the container with thermocouple and thermometer in a pan containing cool water (e.g. 12 to 15°C). Close the refrigerator door. Allow the fluid in the container to warm slowly, with occasional agitation. Record the temperature at which the alarm sounds as the high-activation temperature.
- 04.3.7. Remove the container from the warm pan; allow the fluid to return to normal temperature, and record the temperature at which the audible or visible alarm signal stops.
- 04.3.8. Records the date of testing, the refrigerator identification, the thermometer identification, and the identity of the person performing the test.
- 04.3.9. If temperatures of activation are too low or too high, take appropriate corrective actions such as those suggested by the manufacturer, record the nature of the corrections, and repeat the alarm check to document that the corrections were effective.

04.4. Precautions:

- 04.4.1. The thermocouple for the alarm should be easily accessible and equipped with a cord long enough so that it can be easily manipulated.
- 04.4.2. The thermocouple for the continuous temperature monitor need not be in the same container as that of the alarm. If it is in the same container, a notation should be made in the record that explains any

out-of-range temperature registered as a result of the alarm check.

- 04.4.3. When the temperatures of alarm activation are checked, the temperature change should occur slowly enough that measurements and recording are accurate. Too rapid a change in temperature may give the false impression that the alarm does not sound until an inappropriate temperature is registered.
- 04.4.4. The low temperature of activation should be greater than 1°C (e.g. 1.5°C); the high temperature of activation should be less than 6°C (e.g. 5.5°C).

06. RESPONSIBILITY

- 06.1. All Blood Bank Staff of Al-Qunfudah General Hospital.

07. EQUIPMENT AND FORMS::

- 07.1. CHECKLIST

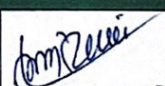
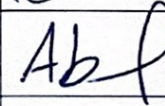
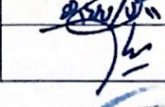
08. Attachment :

N/A

09. Reference

- 09.1. American Association of Blood Banks, 2002.

Preparation , Reviewing & Approval Box

	NAME	POSITION	SIGN & STAMP	DATE
Prepared By	Dr RAJA NACER SASSI	Head of Blood Bank		
Reviewed By	Mr. ABDULHADI ASHIRI	Lab & B.Bank HOD		
Document Reviewed By	Ms. SADIAH ALMAHMOUDI	TQM Director		١٤٤٠/٥/٢٠
Reviewed By	Dr. AGEEL ALGANIMI	Medical Director		
Approved By	Dr. ABDULLAH ALJABRI	Hospital Director		١٤٤٠/٦/١٧

